

AMENDMENTS TO THE CLAIMS

1-73. (Canceled).

74. (Currently Amended) An isolated antibody ~~specific for that binds to~~ a mammalian Presenilin protein ~~having~~, wherein said mammalian Presenilin protein comprises an amino acid sequence as depicted in SEQ ID NOs: 2, 4, or 134, ~~136, or 138~~.

75. (Currently amended) The antibody as defined in claim 74, which binds to ~~is specific for an amino acid sequence of~~ at least six contiguous amino acid residues of SEQ ID NOs: 2, 4, or 134, ~~136, or 138; or antigenic fragments~~.

76. (Currently Amended) The antibody as defined in claim 75, wherein the antibody is ~~specific for~~ binds to an amino acid sequence selected from the group consisting of amino acid residues 30-44, 109-123, 304-318, and ~~or~~ 346-360 of SEQ ID NO:2 ~~SEQ ID NOs:2 or 134~~.

77. (Previously presented) The antibody as defined in claim 74, which is a monoclonal antibody.

78. (Previously presented) The antibody as defined in claim 74, which is a humanized antibody.

79. (Currently amended) A hybridoma for producing the antibody as defined in claim ~~74~~ 77.

80. (Withdrawn, currently amended) A method for detecting the presence of a mammalian Presenilin protein in a biological sample, the method comprising:

- (i) contacting the biological sample with ~~an~~ the antibody as defined in claim 74,
- (ii) incubating the sample and the antibody under conditions to induce binding of the antibody to the sample to form a complex,

- (iii) separating the complex from the sample, and
- (iv) detecting the complex.

81. (Withdrawn, currently amended) The method as defined in claim 80, wherein the antibody ~~is specific for~~ binds to an amino acid sequence selected from the group consisting of amino acid residues 30-44, 109-123, 304-318, ~~or~~ and 346-360 of SEQ ID NO:2 ~~SEQ ID NOS: 2 or~~ 134.

82. (New) The antibody as defined in claim 74, which antibody is raised against an antigenic peptide of either one of SEQ ID NO: 2 and SEQ ID NO:134.

83. (New) The antibody as defined in claim 82, wherein the peptide comprises at least one amino acid sequence selected from the group consisting of amino acid residues 30-44, 109-123, 304-318, and 346-360 of SEQ ID NO:2.

84. (New) An isolated antibody raised against a mammalian Presenilin protein or an antigenic fragment thereof, wherein the mammalian Presenilin protein comprises an amino acid sequence as depicted in SEQ ID NOs: 2, 4, or 134.

85. (New) The antibody as defined in claim 84, which is a monoclonal antibody.

86. (New) The antibody as defined in claim 84, which is a polyclonal antibody.

87. (New) The antibody as defined in claim 84, which is a humanized antibody.

88. (New) A hybridoma for producing the antibody as defined in claim 85.